

Comments In the matter of Petition for Rulemaking RM-10740

To The Commission:

I respectfully disagree with the assertions of Mr. Lonneke and Mr. Ladisky (hereinafter "The Petitioners") in the matter of the Petition For Rulemaking now before The Commission as RM-10740 (hereinafter "The Petition"). I am OPPOSED to this petition for the following reasons:

In section 1.0 of The Petition, the assertion by The Petitioners that adoption of emission mode J3E (single-sideband, suppressed-carrier AM telephony) by Amateur Operators was "to reduce the occupied bandwidth of radiotelephony signals" overlooks or ignores the technical advantages of J3E vs. A3E emissions, such as transmitter efficiency, comparative immunity to frequency-selective fading due to exalted-carrier reception, and drastically reduced power requirements for a given level of intelligibility at the point of reception. To the average Amateur operator, these technical benefits are a far greater attraction to J3E than a narrower bandwidth. While it may be true that more J3E emissions can occupy a given band than A3E emissions can, I submit that this is likely not the reason most Amateurs operating in the HF spectrum choose to operate J3E.

Also in Section 1.0, two distinct groups of operators are discussed in a single sentence as a unified argument in favor of mandated bandwidth restrictions: one group is alleged to operate their transmitters in such a way that they deliberately radiate spurious emissions in portions of HF spectrum while contests are under way, the other is group of Amateurs which are openly experimenting with improving the quality of their transmitted audio while operating in J3E, employing many measures, including expanding their transmitted bandwidth to as much as 6 kHz.

In the matter of the first group, those deliberately running their transmitters outside their normal operating parameters to intentionally radiate spurious emissions: 97.307(b), 97.307(c), and 97.307(d) already provide sufficient regulation to cover cases of transmitted spectral impurity, be they intentional or unintentional. Therefore, I respectfully submit that these cases are irrelevant to the subject of bandwidth applied to specific modes, and that such operators should be cited under the aforementioned regulations, as well as others that may apply.

In the matter of the second group, those who are experimenting with improved fidelity with a J3E emission by expanding their bandwidth: The Petitioners' application of 97.307(f)(2) (in Section 2.0 of The Petition) has absolutely no bearing on J3E operation, as it applies solely to non-phone emissions, and emissions having "B" as the first symbol (such as independent sideband AM telephony). Even if this regulation applied to J3E, it would not be violated by a 6K00J3E emission.

In Section 3.0 of The Petition, The Petitioners arbitrarily ask for a 5.6 kHz bandwidth cap for A3E emission, without ever citing a single reason, technical or procedural, that such a cap would be beneficial to the Amateur service.

Also in Section 3.0 of The Petition, The Petitioners claim to not support the establishment of "type-acceptance" for amateur transmitters. Once again, I would refer The Petitioners to 97.307(b), 97.307(c), and 97.307(d), which provide the standards for which Amateur operators are required to operate within, regardless of equipment certification or lack thereof, and remind them that commercially-built Amateur transmitter are in fact required to meet certification (formerly termed "type acceptance" by The Commission) before being retailed in the United States.

In section 4.0 of The Petition, The Petitioners suggest that 2.8 kHz bandwidth cap can already be satisfied by many Amateur transmitters. I possess a Gonset GSB-100, one of the oldest J3E transmitters around, which has a designed roll-off just over 3 kHz. I should not have to modify this radio to solve a problem that doesn't exist for my transmitter, as The Petitioners would have me do. Additionally, The Petitioners suggest a "high-pass" filter installed in the path of the microphone would bring a transmitter within the 2.8 kHz cap they suggest. I will give The Petitioners the benefit of the doubt and assume they meant "low-pass" (as a high-pass filter would have the opposite of the intended effect, or cut off the modulating audio altogether), but would argue that such steps are insufficient if any energy outside the 2.8 kHz cap is to be considered a "spurious emission" and thus be regulated to at least 40 dB below the intended signal. It is my submission that such results can only be achieved in the IF and RF stages of a transmitter and would constitute an unreasonable expense to the Amateur.

In reviewing Exhibit II of The Petition, the second-to-last paragraph suggests to me that, in fact, those experimenting with better audio with a J3E emission are acutely aware of the balance between fidelity and bandwidth, and actually working towards achieving their goals in a narrower bandwidth, contrary to the assertions of The Petitioners and their referenced assertions of Mr. Hollingsworth. The "mid-fi" station referenced in Exhibit II of The Petition is reported to have a bandwidth of 3.5 kHz, which is only 500 Hz greater than my aforementioned Gonset GSB-100, which has always been a legal radio and should stay that way.

Finally, at no point have The Petitioners demonstrated that any Amateur station in J3E operation has ever exceeded the bandwidth of a fully-modulated commercial-quality A3E emission, the prevailing standard for bandwidth amongst amateurs on HF. In fact, in review of Exhibit II of The Petition, it would appear that a 6 kHz bandwidth has never been exceeded in the name of good audio on J3E emissions, where a fully-modulated A3E emission of commercial quality would occupy the same bandwidth.

To also address the comments of James E. Whedbee, N0ECN, the fact of bandwidth caps on the recently-allocated Amateur spectrum in the 60 meter band, I would refer Mr. Whedbee to the actual Report and Order in which The Commission allocated the current 60 meter assignments. In the case of the 60 meter band, the 2.8 kHz bandwidth cap is due to the fact that defense agencies of the United States Government hold primary allocation of this band, and that their operation on this band is channelized in roughly 3 kHz increments. Additionally, these agencies employ Automated Link Establishment (ALE) systems which could be adversely effected by an Amateur radiating outside their channel allocation. The 2.8 kHz cap on 60 meters was one of the NTIA's provisions to Amateur operation on those frequencies, and does not necessarily imply a reflection of the opinions or intentions of The Commission as Mr. Whedbee suggests. The Commission are encouraged to comment on this matter, however.

These conditions do not exist on any other band, as none of the other Amateur HF bands are non-primary assignments or shared so closely with vital government services. Amateur Radio does not, will not, and should never outweigh national security; the result is the sort of spectrum allocation and provisions that Amateurs are not accustomed to.

This does not constitute precedent in terms of The Commission's intentions for J3E emissions as much as the NTIA's willingness to give Amateurs a chance (for which this Amateur is grateful and quite willing to accept those conditions, given the circumstances).

Conversely, I agree with Mr. Whedbee's comments regarding A3E emissions.

With the recent 60 meter allocation, Amateurs are already having to pay much closer attention to exactly what energy they are radiating and exactly where they are radiating it. Learning to manipulate one's transmitted bandwidth is certainly an important survival skill on HF. One can't learn to narrow one's passband without also learning how to widen it. Therefore, to simply outlaw all J3E emissions below 28.8 MHz that exceed 2.8 kHz seems contrary to the spirit of Amateur Radio as stated in 97.1(b), 97.1(c), and 97.1(d).

In conclusion: I respectfully submit to The Commission that Petition For Rulemaking before you today as RM-10740 should be DENIED for the above-stated purposes.

Respectfully Submitted:

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